



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/773,103	01/31/2001	Steven Chien-Young Chen	00,236-A	5447
32097	7590	06/17/2004	EXAMINER	
LESAVICH HIGH-TECH LAW GROUP, P.C. SUITE 325 39 S. LASALLE STREET CHICAGO, IL 60603			MOORE, IAN N	
			ART UNIT	PAPER NUMBER
			2661	11

DATE MAILED: 06/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.	Applicant(s)
09/773,103	CHEN ET AL.
Examiner	Art Unit
Ian N Moore	2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) Responsive to communication(s) filed on \_\_\_\_.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) Claim(s) 1-37 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_ is/are allowed.
- 6) Claim(s) 1-26, 28, 30 and 32-37 is/are rejected.
- 7) Claim(s) 27, 29 and 31 is/are objected to.
- 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3,4,5,8.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Priority***

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Taiwan on 10/12/2000. It is noted, however, that applicant has not filed a certified copy of the 89109172 application as required by 35 U.S.C. 119(b).

### ***Information Disclosure Statement***

2. It is noted that IDS form PTO-1449 was electronically filed on November 25, 2000 (as paper # 10), thus there is no paper copy. Since the entire application was not filed electronically, examiner is requesting the applicant to re-submitted (via fax or mail) paper# 10 IDS PTO-1449 in order to be considered by the examiner.

### ***Drawings***

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “**a removal display unit**” in (claim 12, claim 28) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

### ***Specification***

4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: **Integrated phone-based home gateway system with a broadband communication device.**

*Claim Objections*

5. **Claim 3** is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 3 further limits claim 1. Claim 3 recites, "...wherein the portable multi-function handset..." Claim 1 does not disclose "the portable multi-function handset". However, claim 2 discloses "the portable multi-function handset".

*Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-3,5,8,8-13,21,22, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Edson (U.S. 6,526,581) in view of Jarett (U.S. 65,911,120).

**Regarding claims 1 and 30**, Edson'581 discloses an integrated phone-based home gateway system conversion system for connecting to existing phone systems (see **FIG. 1, Gateway 13**), providing in-home and to-home networking (see **FIG. 1, an in-home network 11**), comprising in combination:

a home gateway interface (see FIG. 2, a combined system of power line interface 123, Other interface 125, HPNA interface 121, router 103, Storage 107; see col. 9, lines 7-14) for initializing broadband communications service configurations and provisions (see col. 10, lines 1-65; note that the combined system initializes/processes/starts the broadband/DSL/CATV communications services configurations and provisions/requirements by converting between the user's data protocol (i.e. CATV video, voice, or data) to the protocol that can communicate with the external network (i.e. DSL, CATV, or X-Link); see col. 5, lines 45 to col. 6, lines 50);

for providing routing or bridging for networking communications (see col. 9, lines 52-63, see col. 10, lines 45-67; note that the router 103 routes the networking communication data between internal interfaces and the external network interfaces);

a communications interface for connecting to one or more networks (see FIG. 2, the combined system of cable modem interface 117, ADSL modem interface 115 and other modem interface 119 connects to one or more external networks; see col. 5, lines 45-57), for providing data communications (see FIG. 2, see FIG. 2, the combined system of cable modem interface 117, ADSL modem interface 115 and other modem interface 119 provides data communications), for providing broadband communications (see FIG. 2, the cable modem interface 117 and/or ADSL modem interface 115 provides broadband communications) and for providing narrow band communications including voice communications (see FIG. 2, ADSL modem interface 115 provides the narrow band voice communications since it is connected to standard telephone 32 via analog line); see col. 10, lines 24-65;

a processor (see FIG. 2, CPU 105) for processing information from the one or more networks (see col. 9, lines 8-33, 51-63; see col. 10, lines 65 to col. 11, lines 19; note that the CPU process the information to/from networks by controlling the router and firewall);

a wireless communications interface (see FIG. 1, Other interface 125 which compatible to a wireless local data link) for connecting to external devices (see FIG. 1, devices (i.e. cordless phone or other in-home wireless media devices) that couple to a wireless local data link; see col. 10, lines 52--55; see col. 7, lines 10-15);

a home phone line network adapter ("HPNA") module (see FIG. 2, HPNA interface module 121); and

one or more RJ-11 interface jacks (see FIG. 3, each home devices RJ11 switch must use RJ-11 telephone interface jacks in order to tap into twisted pair 21 towards HPNA module; see col. 7, lines 60-67; see col. 13, lines 23-27).

Edson'581 does not explicitly disclose a display interface for displaying the information from the one or more networks.

However, the above-mentioned claimed limitations are taught by Jarett'120. In particular, Jarett'120 disclose a wireless communications interface (see FIG. 3, Cordless Cellular Transceiver 23) for connecting to external wireless devices (see FIG. 2, cordless Mobile stations 12); see col. 7, lines 5-16, 49-55;

a display interface (see FIG. 3, LCD Display 33) for displaying the information from the one or more networks (see col. 9, lines 5-15; see col. 20, lines 50-65; note that display

**33 of the cordless cellular base station displays the information (i.e. phone numbers) from the networks).**

Note that Edson'581 teaches that a home gateway system can be implemented with a wireless internal media. Jarett'120 teaches a cordless gateway base station with the modem which couples to the public network, a LCD to display the network information, and connects to the home wireless mobile units. In view of this, having the system of Edson'581 and then given the teaching of Jarett'120, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Edson'581, for the purpose of providing a home gateway system with a display and wireless connection to the wireless devices and providing the wireless devices with the capability to communicate with both home gateway base station and the cellular base station, as taught by Jarett'120, since Jarett'120 states the advantages/benefits at col. 2, lines 24-30, see col. 3, lines 25-27 that it would reduce the cost of the hardware and software implementation to operate the cordless cellular base station. The motivation being that by utilizing the LCD to display the caller and calling party information at the gateway unit, it can increase the subscriber's ability to monitor the call. Also, The motivation being that by utilizing the wireless interface at the gateway unit in order to communicate with other external wireless devices, it can reduce the cost of extra wiring in the home.

**Regarding claims 2 and 3,** Jarett'120 discloses a portable multi-function handset performs the function of at least one of a cordless phone, a mobile phone, a web phone, or a walkie-talkie radio (see FIG. 1 and FIG. 5; Cordless phone 12; see col. 12, lines 5-44).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Edson'581 as taught by Jarett'120 for the same reason stated in Claim 1 above.

**Regarding claim 5**, Edson'581 discloses wherein the communication interface includes a digital subscriber line ("DSL") device and an analog modem (see **FIG. 2, ADSL modem is the combined system of DSL device and an analog modem which connects to ADSL link towards public network; see col. 5, lines 45 to col. 6, lines 26**). Jarett'120 disclose the analog modem (see **FIG. 3, Modem 27; see col. 7, lines 12-15**).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Edson'581 as taught by Jarett'120 for the same reason stated in Claim 1 above.

**Regarding claims 8 and 9**, Edson'581 discloses at least one module for interfacing with an external device (see **FIG. 2, HPNA Interface module 121**) wherein the external device includes a desk-top computer, lap-top computer, notebook computer, a home security device (see **FIG. 1, Alarm system 34**), a mobile phone, a personal digital assistant, a Internet Protocol-based home appliance, a printer (see **FIG. 1, Printer 33**), a facsimile machine, a video camera, or a scanner; **see col. 7, lines 25-43**.

**Regarding claim 10**, Edson'581 discloses wherein the, at least one module for interfacing with an external device includes an RJ-11 module, a peripheral component

interconnect ("PCI") module, a Universal Serial Bus ("USB") module, a home phone line network adapter ("HPNA") module (see FIG. 1, D1 **interfaces 311, 312, 313 implements HPNA standard interface protocol for digital communication over the twisted pair 21**), a Personal Computer Memory Card International Association ("PCMCIA") interface module, a Bluetooth module, an infra data association ("IrDA") module, or a wireless interface module; see col. 7, lines 60-67.

**Regarding claim 11**, Edson'581 discloses one or more modular plug-and-play interfaces (see col. 4, lines 20-35; **note that internal and external interfaces of the gateway are in the form of the plug-in cards. Thus, it is clear that they are plug-and-play interfaces**).

**Regarding claims 12 and 13**, Jarett'120 discloses wherein the display interface comprises a removable display unit (see FIG. 5, LCD display 56 of the mobile station 12; **note that the LCD display 33 of the cordless gateway base station and the LCD display 56 of the mobile station 12 display the same information about the network when the mobile unit is rested on the cordless base station cradle. Thus, LCD display 33 comprises a remote/removable LCD display 56**),

wherein the removable display unit interfaces with the home gateway interface through a wireless infrared or a wireless radio frequency communications interface (see FIG. 5, **Wireless Transceivers 50 and 52 of the mobile unit; see col. 12, lines 30-43**);

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Edson'581 as taught by Jarett'120 for the same reason stated in Claim 1 above.

**Regarding claim 21**, Eon'581 discloses wherein the one or more networks include a public switched telephone network, a regional broadband network, or the Internet (see FIG. 1, gateway 13 couples to public networks such as CATV network, ADSL network, and other public network such as Internet, PSTN, or wireless; **col. 5, lines 45-57, see col. 2, lines 51 to col. 3, lines 5, see col. 4, lines 41-44; see col. 6, lines 18-49**).

**Regarding claims 22**, the combined system of Edson'581 and Jarett'120 discloses a wireless communications interface as described above in claim 1. Jarett'120 discloses an infrared or radio frequency wireless communication interface (see **FIG. 3, Cordless Cellular Transceiver 23**).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Edson'581 as taught by Jarett'120 for the same reason stated in Claim 1 above.

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Edson'581 and Jarett'120 as applied to claim 1 above, and further in view of Yamamoto (U.S. 5,572,575).

**Regarding claim 4**, the combined system of Edson'581 and Jarett'120 discloses the gateway cordless/wireless system and the communication interface as described above in

claim 1. Neither Edson'581 nor Jarett'120 explicitly discloses a speaker phone (see Yamamoto'575 FIG. 2-3, SP phone 28; col. 5, line 59 to col. 6, lines 6).

However, the above-mentioned claimed limitations are taught by Yamamoto'575. In view of this, having the combined system of Edson'581 and Jarett'120, then given the teaching of Yamamoto'575, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Edson'581 and Jarett'120, for the purpose of providing a speaker phone to a gateway wireless system, as taught by Yamamoto'575, since Yamamoto'575 states the advantages/benefits at col. 1, lines 40-57 that it would provide a speaker phone functionality to the base gateway station even if the handset unit has no speaker phone circuit. The motivation being that by providing a speaker phone to the base gateway station, it can reduce the cost of the speaker phone IC in the handset unit since the handset unit no longer requires to have a speaker phone IC.

8. Claims 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Edson'581 and Jarett'120 as applied to claim 1 above, and further in view of Gerszberg (U.S. 6,396,531).

**Regarding claims 14 and 15**, the combined system of Edson'581 and Jarett'120 discloses wherein the display interface displays and accesses data messages as described above in claim 1.

Neither Edson'581 nor Jarett'120 explicitly discloses wherein the display interface displays and accesses voice and video messages.

However, the above-mentioned claimed limitations are taught by Gerszberg'531. In particular, Gerszberg'531 discloses wherein the display interface (see **FIG. 3A-B and FIG.**

**14, Touch screen Display 141)** displays and accesses voice, video and data messages, wherein the data messages includes Internet Protocol messages or e-mail messages (see FIG. 22; note that the touch screen 141 display and accesses a list of voice, video, and e-mail messages; see col. 12, lines 60 to see col. 13, lines 16; see col. 36, lines 65 to see col. 37, lines 50.)

In view of this, having the combined system of Edson'581 and Jarett'120, then given the teaching of Gerszberg'531, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Edson'581 and Jarett'120, for the purpose of providing display interface which displays and access voice, video, and e-mail messages to the device, as taught by Gerszberg'531, since Gerszberg'531 states the advantages/benefits at col. 2, lines 44-54 that it would provide an intergraded device which provides integrated access to the services into a single platform with a user friendly interface. The motivation being that by providing a integrated display with an interface which displays and access voice, video, and e-mail messages, it can reduce the cost and increase the user ability to access multiple services from one interface display.

**Regarding claims 16 and 18,** the combined system of Edson'581 and Jarett'120 discloses wherein the display interface displays data messages as described above in claim 1.

Neither Edson'581 nor Jarett'120 explicitly discloses wherein the display interface displays a graphical representation of a keypad (see Gerszberg'531 FIG. 3A-B and FIG. 14, **Touch screen Display 141 comprising a virtual keypad 162;** see col. 12, lines 60 to col. 13, lines 16).

However, the above-mentioned claimed limitations are taught by Gerszberg'531. In particular, In view of this, having the combined system of Edson'581 and Jarett'120, then given the teaching of Gerszberg'531, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Edson'581 and Jarett'120, for the purpose of providing display interface which displays a touch screen key pad, as taught by Gerszberg'531, since Gerszberg'531 states the advantages/benefits at col. 2, lines 44-54 that it would provide an intergraded device with a touch-sensitive screen display for interactively displaying video and accompanying signals and menu screens such as keypads. The motivation being that by providing a touch-sensitive display screen with a virtual keypad, it can increase the user ability to access multiple menu and services from one interface display.

**Regarding claim 17**, the combined system of Edson'581 and Jarett'120 discloses wherein the display interface displays data messages as described above in claim 1.

Neither Edson'581 nor Jarett'120 explicitly discloses wherein the display interface displays at least one line of real-time stock quote, weather, headline news, community news, or a electronic address information from the Internet (see **Gerszberg'531 FIG. 3A-B and FIG. 14, Touch screen Display 141**; see col. 11, lines 45-67; note that the user may select any number of services to display on the video phone such as weather, headlines in the news, stock quotes, neighborhood community services information).

However, the above-mentioned claimed limitations are taught by Gerszberg'531. In particular, In view of this, having the combined system of Edson'581 and Jarett'120, then

given the teaching of Gerszberg'531, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Edson'581 and Jarett'120, for the purpose of providing display interface which displays video and data messages such as news and stock quotes, as taught by Gerszberg'531, for the same motivation as stated above in claims 14-15.

**Regarding claim 19**, Gerszberg'531 discloses wherein the keypad is a graphical representation of a key pad on the display (see **FIG. 3A-B, Touch screen Display 141 comprising a virtual keypad 162**), a numeric key pad, an alpha-numeric key pad or a keyboard (see **FIG. 14, an alpha-numeric key pad 162; see col. 12, lines 60 to col. 13, lines 16**).

However, the above-mentioned claimed limitations are taught by Gerszberg'531. In particular, In view of this, having the combined system of Edson'581 and Jarett'120, then given the teaching of Gerszberg'531, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Edson'581 and Jarett'120, for the purpose of providing display interface which displays a touch screen an alpha-numeric key pad, as taught by Gerszberg'531, for the same motivation as stated above in claim 14-15.

**Regarding claim 20**, neither Edson'581 nor Jarett'120 explicitly discloses a video camera (see **Gerszberg'531 FIG. 3A-B, a video camera 145; see col. 12, lines 38-48**).

However, the above-mentioned claimed limitations are taught by Gerszberg'531. In particular, In view of this, having the combined system of Edson'581 and Jarett'120, then given the teaching of Gerszberg'531, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Edson'581 and Jarett'120, for the purpose of providing a video camera, as taught by Gerszberg'531, since Gerszberg'531 states the advantages/benefits at col. 39, lines 20-35 that it would provide a parental control to monitor the children, and per col. 13, lines 1-4, it would provide for viewing a person to whom a user is speaking at each end. The motivation being that by providing a video camera, it can increase the user ability to view the called and calling parties during the call and increase the capability to monitor the children.

9. Claims 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Edson'581 and Jarett'120 as applied to claim 1 above, and further in view of Treyz (U.S. 6,678,215).

**Regarding claim 23**, neither Edson'581 nor Jarett'120 does not explicitly a Bluetooth protocol based interface a Shared Wireless Access Protocol based interface or a Wireless Application Protocol based interface (see **Treyz'215 FIG. 2, Residential gateway 45 comprising a bluetooth wireless interface; see Treyz'215 col. 11, line 1-12**).

However, the above-mentioned claimed limitations are taught by Treyz'215. In view of this, having the combined system of Edson'581 and Jarett'120, then given the teaching of Treyz'215, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Edson'581 and Jarett'120, for the purpose of providing a bluetooth wireless interface to the residential gateway, as taught by

Treyz'215, since Treyz'215 states the advantages/benefits at col. 10, lines 10-24, col. 9, lines 50-65 that it would provide an alternative way of wireless transmission which can be used to communicate with residential devices. The motivation being that by utilizing bluetooth technology, it can increase the capability of communicating with the other home devices wirelessly.

**Regarding claim 24**, the combine system of Edson'581 and Jarett'120 discloses the wireless communication interface as described above in claim 1. Jarett'120 further discloses a wireless communication interface (**see FIG. 3, Cellular transceiver 23**) for connecting to external wireless network devices (**see FIG. 2, Mobile phones 12**) on a wireless piconet (**see FIG. 2, cordless cell**).

Neither Edson'581 nor Jarett'120 explicitly discloses a short-range wireless communication interface (**see Treyz'215 FIG. 2, Residential gateway 45 comprising a short-range wireless interface link 48 such as HomeRF or Bluetooth in order to communicate with wireless device 12d; see Treyz'215 col. 10, lines 1-26**).

However, the above-mentioned claimed limitations are taught by Treyz'215. In view of this, having the combined system of Edson'581 and Jarett'120, then given the teaching of Treyz'215, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Edson'581 and Jarett'120, for the purpose of providing a bluetooth wireless interface with the short range interface to the residential gateway, as taught by Treyz'215, for the same motivation as described above in claim 23.

**Regarding claim 25, the combine system of Edson'581 and Jarett'120 discloses the wireless communication interface as described above in claim 1.**

Neither Edson'581 nor Jarett'120 explicitly discloses a long-range wireless communication interface (see Treyz'215 FIG. 2, interface link 50; note that **Residential gateway 45 comprising a long-range wireless interface link 50 such as wireless paging links or terrestrial/cellular/satellite links in order to directly communicate with wireless device 12a**) and a short-range wireless communication interface (see Treyz'215 FIG. 2, **Residential gateway 45 comprising a short-range wireless interface link 48 such as HomeRF or Bluetooth in order to communicate with wireless device 12d**); see Treyz'215 col. 10, lines 1-26.

However, the above-mentioned claimed limitations are taught by Treyz'215. In view of this, having the combined system of Edson'581 and Jarett'120, then given the teaching of Treyz'215, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Edson'581 and Jarett'120, for the purpose of providing a cellular/bluetooth wireless interface with the long and short range interface links, as taught by Treyz'215, for the same motivation as described above in claim 22 and 23.

**Regarding claim 26, the combine system of Edson'581 and Jarett'120 discloses the wireless communication interface as described above in claim 1.**

Neither Edson'581 nor Jarett'120 explicitly discloses a long-range wireless communication interface (see **FIG. 2, interface link 50**) for connecting to external wireless network devices (see **FIG. 2, Device 12d**) on a wireless wide area network (see **FIG. 2, communication network 18 is the public wireless wide area network; see col. 8, lines 41-46**; note that **Residential gateway 45 comprising a long-range wireless interface link 50 such as wireless paging links or terrestrial/cellular/satellite links in order to directly communicate with wireless device 12a; see Treyz'215 col. 10, lines 1-26**).

However, the above-mentioned claimed limitations are taught by Treyz'215. In view of this, having the combined system of Edson'581 and Jarett'120, then given the teaching of Treyz'215, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Edson'581 and Jarett'120, for the purpose of providing a cellular/bluetooth wireless interface with the long range interface links towards the other wireless devices via the cellular network, as taught by Treyz'215, for the same motivation as described above in claim 23.

10. Claims 6,7, and 32-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Edson'581 in view of well established teaching in art.

**Regarding claim 32**, Edson'581 discloses a method for initializing an integrated phone-based home gateway system (see **FIG. 1, Gateway 13**), comprising:  
providing one or more narrow-band communications channels (see **FIG. 1, ADSL link 15 carrying narrow band channels**) with a public switched telephone network (see **col. 2, lines 51 to col. 3, lines 5, see col. 4, lines 41-44; ADSL link connects to public PSTN**) from the integrated phone-based home gateway system (see **FIG. 2, the narrow-band**

**communication channels are communicated/provided with the PSTN network by ADSL modem since it is connected to standard telephone 32 via analog line. Also see col. 5, lines 45-57);**

**providing one or more broadband communications channels (see FIG. 1, ADSL link 15 carrying broad band channels) with a public switched telephone network (see col. 2, lines 51 to col. 3, lines 5, see col. 4, lines 41-44; ADSL link connects to public PSTN) from the integrated phone-based home gateway system (see FIG. 2, the broad-band communication channels are communicated/provided with the PSTN network by ADSL modem; see col. 5, lines 45 to col. 6, lines 50);**

**initializing a data communications interface (see FIG. 2, the combined system of cable modem interface 117, ADSL modem interface 115 and other modem interface 119 provides data communications) for a data network (see FIG. 1, a data network that couples to the combined system interfaces; see col. 5, lines 45-53) from the integrated phone-based home gateway system (see col. 10, lines 1-65; note that CPU initializes/processes/start the combined system for the data communications; see col. 5, lines 45 to col. 6, lines 50; see col. 9, lines 8-33, 51-63; see col. 10, lines 65 to col. 11, lines 19);**

**initializing routing or bridging information (see FIG. 2, a combined system of storage of programming 107, 109, and the router 103) on integrated phone-based home gateway system (see col. 9, lines 52-63, see col. 10, lines 45-67; note that the router 103 routes the networking communication data between internal interfaces and the external network interfaces according to the stored information); and**

Initializing broadband communications service configurations and provisions from the integrated phone-based home gateway system (see col. 10, lines 1-65; note that **CPU initializes/process/starts the combined system for the broadband/DSL/CATV communications services configurations and provisions/requirements by converting between the user's data protocol (i.e. CATV video, voice, or data) to the protocol that can communicate with the external network (i.e. DSL, CATV, or X-Link); see col. 5, lines 45 to col. 6, lines 50); see col. 9, lines 8-33, 51-63; see col. 10, lines 65 to col. 11, lines 19.**

Edson'581 does not explicitly disclose establishing one or more communications channels with the public network and routing or bridging tables.

However, the above-mentioned claimed limitations are taught by well-established teaching in art. **In particular, it is well-known in the art the when a gateway system which comprises a plurality of modems, a router, and CPU, and it is connected to the public network, the connection must be established via signaling tones/information before initiating/start the communication. Also, it is well known in the art that the router and the program/database must have a routing or bridging tables in order to route the data.**

In view of this, having the system of Edson'581 and then given the teaching of well established teaching in art, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Edson'581, for the purpose of utilizing well known mechanism of establishing the connection before initializing the communication and utilizing well known routing table in the gateway router and storage. The

motivation being that by establishing the connection before initializing the communication, it can increase subscriber's satisfaction by ensuring the reliable connection. Also, The motivation being that by utilizing the routing table, it can increase the router capability to easily identify the data associated with the home network device.

**Regarding claims 6 and 35,** the combined system of Edson'581 and well established teaching in art discloses wherein the step of establishing one or more broadband communications channels as described above in claims 1 and 32.

Edson'581 further discloses an asymmetric digital subscriber line ("ADSL"), symmetric DSL ("SDSL"), high-bit-rate DSL ("HDSL"), very-high-bit-rate DSL ("VDSL") or an asynchronous transport mode ("ATM") channel (**see FIG. 2, ADSL modem 115 towards ADSL link 15; see col. 5, lines 45 to col. 6, lines 26**).

**Regarding claims 7 and 34,** the combined system of Edson'581 and well established teaching in art discloses wherein the step of establishing one or more narrow-band communications channels as described above in claims 1 and 32.

Edson'581 further discloses a plain old telephone service ("POTS") channel (**see FIG. 2, ADSL modem 115 towards ADSL link 15 and see FIG. 4, POTS 32 towards ADSL modem via HPNA; see col. 5, lines 45 to col. 6, lines 26; see col. 13, lines 24 to col. 38**) or a Voice-over-Internet Protocol ("VoIP") channel (**see col. 9, lines 15-32; IP telephony service**).

**Regarding claim 33**, Edson'581 discloses computer readable medium having stored therein instructions (see **FIG. 2, Hard disk drive 107 or the like for storage of programming 109 and data 11**) for causing a processor to execute the steps of the method (see **FIG. 2, CPU 105 process and control all operations/methods of the gateway 105**); see col. 9, lines 7-14.

**Regarding claim 36**, the combined system of Edson'581 and well established teaching in art discloses initializing a data communications interface for a data network from the integrated phone-based home gateway system as described above in claim 32.

Edson'581 further discloses an Internet Protocol ("IP") interface (see **FIG. 1, the Internet couples to the combined system interfaces (i.e. ADSL, Cable, or other modem)**), thus it is clear that each combined system interface is an IP interface since it connects to the Internet; see col. 5, lines 45-53; see col. 6, lines 18-40).

**Regarding claim 37**, the combined system of Edson'581 and well established teaching in art discloses initializing broadband communications service configurations and provisions via the integrated phone-based home gateway system as described above in claim 32.

Edson'581 further discloses asymmetric digital subscriber line ("ADSL"), symmetric DSL ("SDSL"), high-bit-rate DSL ("HDSL") very-high-bit-rate DSL ("VDSL") or asynchronous transport mode ("ATM") (see col. 10, lines 1-65; note that after establishing the connection/path, CPU initializes/process/start the ADSL modem for ADSL

**communications services configurations and provisions/requirements by converting between the user's data protocol (i.e. video, voice, and data) to the protocol that can communicate with the external network (i.e. ADSL); see col. 5, lines 45 to col. 6, lines 50); see col. 9, lines 8-33, 51-63; see col. 10, lines 65 to col. 11, lines 19.**

11. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Edson'581, Jarett'120, Gerszberg'531, and further in view of Treyz'215.

**Regarding claim 28,** Edson'581 discloses an integrated phone-based home gateway system conversion system (see FIG. 1, **Gateway 13**), providing in-home and to-home networking (see FIG. 1, **an in-home network 11**), comprising in combination:

**a home gateway interface (see FIG. 2, a combined system of power line interface 123, Other interface 125, HPNA interface 121, router 103, Storage 107; see col. 9, lines 7-14) for initializing broadband communications service configurations and provisions (see col. 10, lines 1-65; note that the combined system initializes/processes/starts the broadband/DSL/CATV communications services configurations and provisions/requirements by converting between the user's data protocol (i.e. CATV video, voice, or data) to the protocol that can communicate with the external network (i.e. DSL, CATV, or X-Link); see col. 5, lines 45 to col. 6, lines 50);**

**a communications interface for connecting to one or more networks (see FIG. 2, the combined system of cable modem interface 117, ADSL modem interface 115 and other modem interface 119 connects to one or more external networks; see col. 5, lines 45-57), for providing data communications (see FIG. 2, see FIG. 2, the combined system of cable**

**modem interface 117, ADSL modem interface 115 and other modem interface 119 provides data communications**), for providing broadband communications (see FIG. 2, the **cable modem interface 117 and/or ADSL modem interface 115 provides broadband communications**) and for providing narrow band communications including voice communications (see FIG. 2, **ADSL modem interface 115 provides the narrow band voice communications** since it is connected to standard telephone 32 via analog line); see col. 10, lines 24-65;

a processor (see FIG. 2, CPU 105) for processing information from the one or more networks (see col. 9, lines 8-33, 51-63; see col. 10, lines 65 to col. 11, lines 19; note that the CPU process the information to/from networks by controlling the router and firewall);

a wireless communications interface (see FIG. 1, Other interface 125 which compatible to a wireless local data link) for connecting to external devices (see FIG. 1, devices (i.e. cordless phone or other in-home wireless media devices) that couple to a wireless local data link; see col. 10, lines 52--55; see col. 7, lines 10-15);

a home phone line network adapter ("HPNA") module (see FIG. 2, HPNA interface module 121); and

one or more RJ-11 interface jacks (see FIG. 3, each home devices RJ11 switch must use RJ-11 telephone interface jacks in order to tap into twisted pair 21 towards HPNA module; see col. 7, lines 60-67; see col. 13, lines 23-27).

one or more modular plug-and-play interfaces for interfacing with other external devices (see col. 4, lines 20-35; note that internal and external interfaces of the gateway

**are in the form of the plug-in cards. Thus, it is clear that they are plug-and-play interfaces)**

Edson'581 does not explicitly disclose a display interface for displaying the information from the one or more networks.

However, the above-mentioned claimed limitations are taught by Jarett'120. In particular, Jarett'120 disclose a wireless communications interface (see **FIG. 3, Cordless Cellular Transceiver 23**) for connecting to external wireless devices (see **FIG. 2, cordless Mobile stations 12**); see col. 7, lines 5-16, 49-55;

a removable display unit (see **FIG. 3, LCD Display 33**) for displaying the information from the one or more networks (see col. 9, lines 5-15; see col. 20, lines 50-65; see **FIG. 5, LCD display 56 of the mobile station 12**; note that the LCD display 33 of the cordless gateway base station and the LCD display 56 of the mobile station 12 display the same information about the network when the mobile unit is rested on the cordless base station cradle. Thus, LCD display 33 comprises a remote/removable LCD display 56 from the networks);

a portable multi-function handset performs the function of at least one of a cordless phone, a mobile phone, a web phone, or a walkie-talkie radio (see **FIG. 1 and FIG. 5; Cordless phone 12**; see col. 12, lines 5-44).

Note that Edson'581 teaches that a home gateway system can be implemented with a wireless internal media. Jarett'120 teaches a cordless gateway base station with the modem which couples to the public network, a LCD to display the network information, and connects to the home wireless mobile units. In view of this, having the system of Edson'581

and then given the teaching of Jarett'120, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Edson'581, for the purpose of providing a home gateway system with a display and wireless connection to the wireless devices and providing the wireless devices with the capability to communicate with both home gateway base station and the cellular base station, as taught by Jarett'120, since Jarett'120 states the advantages/benefits at col. 2, lines 24-30, see col. 3, lines 25-27 that it would reduce the cost of the hardware and software implementation to operate the cordless cellular base station. The motivation being that by utilizing the LCD to display the caller and calling party information at the gateway unit, it can increase the subscriber's ability to monitor the call. Also, The motivation being that by utilizing the wireless interface at the gateway unit in order to communicate with other external wireless devices, it can reduce the cost of extra wiring in the home.

Neither Edson'581 nor Jarett'120 explicitly discloses wherein the display interface displays and accesses voice, video and data messages;  
wherein the keypad is a key pad for entering an alpha-numeric data;  
an optional video camera for sending and receiving video data to and from the one or more networks;

However, the above-mentioned claimed limitations are taught by Gerszberg'531. In particular, Gerszberg'531 discloses wherein the display interface (see **FIG. 3A-B and FIG. 14, Touch screen Display 141**) displays and accesses voice, video and data messages (see **FIG. 22**; note that the touch screen 141 display and accesses a list of voice, video, and e-

mail messages; see col. 12, lines 60 to see col. 13, lines 16; see col. 36, lines 65 to see col. 37, lines 50.);

a keypad (see FIG. 3A-B, Touch screen Display 141 comprising a virtual keypad 162) for entering an alpha-numeric data (see FIG. 14, an alpha-numeric key pad 162; see col. 12, lines 60 to col. 13, lines 16);

an optional video camera for sending and receiving video data to and from the one or more networks (see Gerszberg'531 FIG. 3A-B, a video camera 145 sends and receives data to/from networks; see col. 12, lines 38-48).

In view of this, having the combined system of Edson'581 and Jarett'120, then given the teaching of Gerszberg'531, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Edson'581 and Jarett'120, for the purpose of providing display interface which displays and access voice, video, and e-mail messages to the device, as taught by Gerszberg'531, since Gerszberg'531 states the advantages/benefits at col. 2, lines 44-54 that it would provide an intergraded device which provides integrated access to the services into a single platform with a user friendly interface. The motivation being that by providing a integrated display with an interface which displays and access voice, video, and e-mail messages, it can reduce the cost and increase the user ability to access multiple services from one interface display.

In view of this, having the combined system of Edson'581 and Jarett'120, then given the teaching of Gerszberg'531, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Edson'581 and Jarett'120, for the purpose of providing display interface which displays a touch screen key

pad, as taught by Gerszberg'531, since Gerszberg'531 states the advantages/benefits at col. 2, lines 44-54 that it would provide an intergraded device with a touch-sensitive screen display for interactively displaying video and accompanying signals and menu screens such as keypads. The motivation being that by providing a touch-sensitive display screen with a virtual keypad, it can increase the user ability to access multiple menu and services from one interface display.

In view of this, having the combined system of Edson'581 and Jarett'120, then given the teaching of Gerszberg'531, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Edson'581 and Jarett'120, for the purpose of providing a video camera, as taught by Gerszberg'531, since Gerszberg'531 states the advantages/benefits at col. 39, lines 20-35 that it would provide a parental control to monitor the children, and per col. 13, lines 1-4, it would provide for viewing a person to whom a user is speaking at each end. The motivation being that by providing a video camera, it can increase the user ability to view the called and calling parties during the call and increase the capability to monitor the children.

Neither Edson'581, Jarett'120, nor Gerszberg'531 explicitly discloses a Bluetooth module for interfacing with wireless devices using the Bluetooth wireless protocol (see **Treyz'215 FIG. 2, Residential gateway 45 comprising a bluetooth wireless interface; see Treyz'215 col. 11, line 1-12; also note that when the residential gateway has a Bluetooth interface, it must be interfaced with Bluetooth wireless device**);

one or more short-range or long-range wireless interfaces for interfacing with external wireless devices (see **Treyz'215 FIG. 2, Residential gateway 45 comprising a short-range**

**wireless interface link 48 such as HomeRF or Bluetooth in order to communicate with external wireless device 12d; see Treyz'215 col. 10, lines 1-26).**

However, the above-mentioned claimed limitations are taught by Treyz'215. In view of this, having the combined system of Edson'581, Jarett'120 and Gerszberg'531, then given the teaching of Treyz'215, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Edson'581 and Jarett'120, for the purpose of providing a bluetooth wireless interface to the residential gateway and for the purpose of providing a bluetooth wireless interface with the short range interface to the residential gateway, as taught by Treyz'215, since Treyz'215 states the advantages/benefits at col. 10, lines 10-24, col. 9, lines 50-65 that it would provide an alternative way of wireless transmission which can be used to communicate with residential devices. The motivation being that by utilizing bluetooth technology, it can increase the capability of communicating with the other home devices wirelessly.

*Allowable Subject Matter*

12. Claim 27, 29 and 31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ian N Moore whose telephone number is 703-605-1531. The examiner can normally be reached on M-F: 9-5.

/ If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ken Vanderpuye can be reached on 703-308-7828. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

INM  
6/9/04



KENNETH VANDERPUYE  
PRIMARY EXAMINER